

CLAIMS

What is claimed is:

1. A method for downloading data to a portable electronic device, in which a data source management center integrates data provided by publishers or authors, and
5 informs a service management center to retrieve the data for allowing a user to download and browse the data by using a portable electronic device; the method comprising the steps of:
 - (1) converting the data via the data source management center into electronic files, and transmitting the electronic files to the service management
10 center, wherein the transmitted electronic files are stored in a file database of the service management center;
 - (2) determining via the service management center if the user with the portable electronic device submits a request for downloading an electronic file, wherein if the downloading request is submitted, the service
15 management center determines if the user is an authorized member thereof, and step (3) is proceeded; if no downloading request is received by the service management center, the step (2) is returned; and
 - (3) inquiring the user via the service management center to register for membership if the user is not an authorized member; retrieving a
20 corresponding electronic file for downloading as requested by the user from the file database via the service management center, and transmitting the retrieved electronic file to the portable electronic device if the user is an authorized member.

2. The method of claim 1, wherein in the step (1), prior to transmitting the electronic files to the service management center, the electronic files are encoded so as to avoid unauthorized retrieval of the electronic files.

3. The method of claim 2, wherein after the service management center retrieves the encoded electronic file for downloading from the file database, the step (3) further
5 comprises the steps of:

(3-1) dividing the retrieved encoded electronic file into sections via the service management center;

(3-2) placing the sections of the divided encoded electronic file in a dividing
10 order into a temporary storing region of the service management center in a stack form; and

(3-3) retrieving the sections of the divided encoded electronic file via the service management center from the temporary storing region in a first-in-first-out manner, and converting the file sections into displayable
15 format of the portable electronic device, so as to transmit the file sections to the portable electronic device, wherein the portable electronic device stores the received file sections in sequence in a download storing region, allowing the user to browse the electronic file.

4. The method of claim 3, wherein the step (3-3) further comprises the steps of:
20 (3-3-1) determining via the service management center if the sections of the electronic file are completely transmitted, wherein if the transmission is complete, then step (3-3-2) is proceeded; or else, the step (3-3-1) is returned; and

- (3-3-2) establishing a record of bill data via the service management center for charging communication time spent for downloading the electronic file by using the portable electronic device, and storing the bill data in a bill database of the service management center to be used as invoice reference for charging the user with the portable electronic device.
- 5
5. A method for downloading data to a portable electronic device, in which a data source management center integrates data provided by publishers or authors, and informs a service management center to retrieve the data for allowing a user to download and browse the data by using a portable electronic device; the method
- 10 comprising the steps of:
- (1) converting the data via the data source management center into electronic files, and encoding the electronic files to be stored in a file database of the data source management center;
- (2) transmitting the encoded electronic files via the data source management
- 15 center through a network to the service management center, and storing the encoded electronic files via the service management center in a file database thereof;
- (3) determining via the service management center if the user with the portable electronic device submits a request for downloading an electronic file, wherein if the downloading request is submitted, the service management center determines if the user is an authorized member thereof, and step (4) is proceeded; if no downloading request is received by
- 20 the service management center, the step (3) is returned;

- 5 (4) inquiring the user via the service management center to register for membership if the user is not an authorized member; retrieving a corresponding encoded electronic file for downloading as requested by the user from the file database via the service management center, and transmitting the retrieved electronic file to the portable electronic device if the user is an authorized member;
- (5) dividing the retrieved encoded electronic file into sections via the service management center;
- 10 (6) placing the sections of the divided encoded electronic file in a dividing order into a temporary storing region of the service management center in a stack form;
- (7) retrieving the sections of the divided encoded electronic file via the service management center from the temporary storing region in a first-in-first-out manner, and converting the file sections into displayable format of the portable electronic device, so as to transmit the file sections to the portable electronic device, wherein the portable electronic device stores the received file sections in sequence in a download storing region;
- 15 (8) determining via the service management center if the sections of the electronic file are completely transmitted, wherein if the transmission is complete, then step (9) is proceeded; or else, the step (7) is returned;
- 20 (9) establishing a record of bill data via the service management center for charging communication time spent for downloading the electronic file by using the portable electronic device, and storing the bill data in a bill

database of the service management center to be used as reference for charging the user with the portable electronic device; and

- (10) decoding the encoded electronic file in the download storing region via a decoding module of the portable electronic device, for allowing the user to read the decoded electronic file.

6. The method of claim 5, wherein in the step (9), after storing the established record of bill data in the bill database, the service management center performs a first payment sharing process, so as to assign a portion of payment from the user to the data source management center, and generate a record of firstly shared bill data to be uploaded to the data source management center, for being used as reference of payment from the service management center to the data source management center.

7. The method of claim 6, wherein after receiving the firstly shared bill data, the data source management center performs a second sharing process for the received firstly shared bill data in a manner that, a portion of payment left after completing the first sharing process is assigned to a source provider, and a record of secondly shared bill data is generated to be stored in a bill database of the data source management center, for being used as reference of payment to the source provider.

8. The method of claim 5, wherein the service management center periodically retrieves the bill data from the bill database thereof to balance a bill statement, that is e-mailed through a network to a network post server for allowing the user to receive the bill statement through network connection established by a computer device to the network post server, or that is transmitted in a form of a wireless

communication short message to a message center for allowing the user to receive the bill statement through wireless connection established by the portable electronic device to the message center.

9. The method of claim 5, wherein the portable electronic device is internally formed with a reading platform for retrieving the electronic file downloaded from the service management center, so as to display content of the retrieved electronic file on the portable electronic device for being browsed and read by the user.
10. A method for downloading data to a portable electronic device, in which a data source management center integrates data provided by publishers or authors, and informs a service management center to retrieve the data for allowing a user to download and browse the data by using a portable electronic device; the method comprising the steps of:
 - (1) converting the data via the data source management center into electronic files, and encoding the electronic files to be stored in a file database of the data source management center;
 - (2) transmitting the encoded electronic files via the data source management center through a network to the service management center, and storing the encoded electronic files via the service management center in a file database thereof;
 - (3) informing the user through a network to register membership in the service management center, wherein the user inputs associated data of a login account, an identification number and a communication number; establishing a record of member data according to the inputted associated

data, and storing the member data in a member database of the service management center;

(4) determining via the service management center if the user with the portable electronic device submits a request for downloading an electronic file, wherein if the downloading request is submitted, the service management center determines if the user is an authorized member thereof, and step (5) is proceeded; if no downloading request is received by the service management center, the step (4) is returned;

(5) retrieving a corresponding encoded electronic file for downloading as requested by the user from the file database via the service management center, and dividing the retrieved encoded electronic file into sections;

(6) placing the sections of the divided encoded electronic file in a dividing order into a temporary storing region of the service management center in a stack form;

(7) retrieving the sections of the divided encoded electronic file via the service management center from the temporary storing region in a first-in-first-out manner, and converting the file sections into displayable format of the portable electronic device, so as to transmit the file sections to the portable electronic device, wherein the portable electronic device stores the received file sections in sequence in a download storing region;

(8) determining via the service management center if the sections of the electronic file are completely transmitted, wherein if the transmission is complete, then step (9) is proceeded; or else, the step (7) is returned;

- (9) establishing a record of bill data via the service management center for charging communication time spent for downloading the electronic file by using the portable electronic device, and storing the bill data in a bill database of the service management center to be used as reference for charging the user with the portable electronic device;
- (10) performing a first payment sharing process via the service management center to assign a portion of payment from the user to the data source management center, and generating a record of firstly shared bill data to be uploaded to the data source management center, for being used as reference of payment from the service management center to the data source management center;
- (11) performing a second sharing process for the received firstly shared bill data via the data source management center in a manner that, a portion of payment left after completing the first sharing process is assigned to a source provider, and generating a record of secondly shared bill data to be stored in a bill database of the data source management center, for being used as reference of payment to the source provider; and
- (12) decoding the encoded electronic file in the download storing region via a decoding module of the portable electronic device, for allowing the user to read the decoded electronic file.

11. A system for downloading data to a portable electronic device, comprising:

a data source and service management center for receiving data and converting the data into electronic files to be stored in a file database of the data source and

service management center, and for establishing a record of member data including a login account, an identification number and a communication number for a user who firstly logs the data source and service management center, so as to construct a record of dedicated personal file data corresponding to the record of the member data,
5 for being browsed by the user; and

at least one user who is wirelessly connected to the data source and service management center by using a portable electronic device, wherein after the use is verified as a member of the data source and service management center, a corresponding record of dedicated personal file data is transmitted to the portable
10 electronic device, allowing the user to browse introduction information of electronic files in the personal file data; after the user submits a request for downloading a selected electronic file, the data source and service management center searches from the file database for a corresponding electronic file, and transmits the searched electronic file to the portable electronic device, for allowing the user to browse and
15 read the transmitted electronic file.

12. A system for downloading data to a portable electronic device, comprising:

a data source and service management center for receiving data and converting the data into electronic files that are encoded and stored in a file database of the data source and service management center, and for establishing a record of member data
20 to be stored in a member database, so as to verify if a user who submits a login request is a member of the data source and service management center, and allow the user to download required electronic files from the data source and service management center if the user is verified with membership, wherein the data source and service

management center constructs a record of dedicated personal file data for the user, to be browsed by the user for introduction and latest information of electronic file in the personal file data, allowing the user to delete or retain the information if necessary; and

- 5 at least one user who is connected through a network to the data source and service management center by using a computer device, wherein after the use is permitted to login the data source and service management center, a corresponding record of dedicated personal file data is transmitted to the user for browsing; the user is able to be wirelessly connected to the data source and service management center
- 10 by using a portable electronic device, and after the use is verified as a member of the data source and service management center, a corresponding record of dedicated personal file data is transmitted to the portable electronic device, allowing the user to browse introduction information of electronic files in the personal file data for selection; after the user submits a request for downloading a selected electronic file,
- 15 the data source and service management center searches from the file database for a corresponding encoded electronic file, and divides the searched encoded electronic file into sections to be transmitted to the portable electronic device, allowing a decoding module of the portable electronic device to decode the transmitted encoded electronic file, and the user to browse and read the decoded electronic file.
- 20 13. A system for downloading data to a portable electronic device, comprising:

a data source management center for receiving data through a network and converting the data into electronic files that are encoded and stored in a file database of the data source management center;

a service management center for transmitting the encoded electronic files from the file database of the data source management center to a file database of the service management center, and for establishing a record of member data to be stored in a member database thereof, so as to verify if a user who submits a login request is a member of the service management center, and allow the user to download required electronic files from the service management center if the user is verified with membership, wherein the service management center constructs a record of dedicated personal file data for the user, to be browsed by the user for introduction and latest information of electronic file in the personal file data, allowing the user to delete or retain the information if necessary; and

at least one user who is connected through a network to the service management center by using a computer device, wherein after the use is permitted to login the service management center, a corresponding record of dedicated personal file data is transmitted to the user for browsing; the user is able to be wirelessly connected to the service management center by using a portable electronic device, and after the use is verified as a member of the service management center, a corresponding record of dedicated personal file data is transmitted to the portable electronic device, allowing the user to browse introduction information of electronic files in the personal file data for selection; after the user submits a request for downloading a selected electronic file, the service management center searches from the file database for a corresponding encoded electronic file, and divides the searched encoded electronic file into sections to be transmitted to the portable electronic device, allowing a

decoding module of the portable electronic device to decode the transmitted encoded electronic file, and the user to browse and read the decoded electronic file.

14. The system of claim 13, wherein the member data stored in the member database of the service management center include a login account, an identification number and a communication number inputted by the user, and are used as reference for the service management center to verify identity of a user who submits a login request.
15. The system of claim 13, wherein the service management center has a bill database, for storing a record of bill data established by the service management center for charging a process of transmitting the encoded electronic file to the user by the service management center, and the bill data are used as invoice reference for charging the user.
16. The system of claim 15, wherein the service management center periodically retrieves the bill data from the bill database thereof to balance a bill statement, that is e-mailed through a network to a network post server for allowing the user to receive the bill statement through network connection established by the computer device to the network post server, or that is transmitted in a form of a wireless communication short message to a message center for allowing the user to receive the bill statement through wireless connection established by the portable electronic device to the message center.
17. The system of claim 15, wherein after storing the bill data in the bill database, the service management center performs a first payment sharing process, so as to assign a portion of payment from the user to the data source management center,

and generate a record of firstly shared bill data to be uploaded to the data source management center, for being used as reference of payment from the service management center to the data source management center.

18. The system of claim 17, wherein after receiving the firstly shared bill data, the data source management center performs a second sharing process for the received firstly shared bill data in a manner that, a portion of payment left after completing the first sharing process is assigned to a source provider, and a record of secondly shared bill data is generated to be stored in a bill database of the data source management center, for being used as reference of payment to the source provider.

19. The system of claim 18, wherein the secondly shared bill data stored in the bill database of the data source management center include fees of online communication and data downloading paid by the service management center to the data source management center, and fees of online communication and data downloading paid by the data source management center to the source provider.

20. A system for downloading data to a portable electronic device, comprising:

a data source management center for receiving data through a network from a source provider and transmitting the data to a service management center; the data source management center including a receiving module for receiving the data from the source provider; a converting module for converting the received data into electronic files that are encoded and stored in a file database of the data source management center; an encoding module for encoding the electronic files; a file database for storing the encoded electronic files; a transmitting module for transmitting the encoded electronic files to the service management center; a billing

module for performing a payment sharing process for bill data transmitted from the service management center, and accordingly generating a record of shared bill data to be used as reference of payment to the source provider; a bill database for storing the shared bill data generated by the billing module; and a provider database for storing
5 basic information of the source provider, so as to transmit the shared bill data to the source provider according to a living address or an email address of the source provider recorded in the basic information thereof;

a service management center for receiving the encoded electronic files from the data source management center, allowing a user who is a member of the service
10 management center to download the encoded electronic files; the service management center including a receiving module for receiving the encoded electronic files from the data source management center; a file database for storing the received encoded electronic files; a member database for storing a record of member data established by the service management center according to a login account, an identification number
15 and a communication number inputted by the user who registers in the service management center, wherein the member data are used as reference for user's identity identification; a personal file database for storing a record of dedicated personal file data established according to the member data of the user, wherein the personal file data are browsed by the user for introduction and latest information of electronic file
20 after the user logs the service management center, allowing the user to delete or retain the information if necessary; a selecting module for allowing the user to browse introduction information of electronic files in the personal file data for selection, and searching from the file database for a corresponding encoded electronic file after the

user with a portable electronic device submits a request for downloading a selected electronic file; a transmitting module for dividing the searched encoded electronic file into sections and converting the file sections into displayable format of the portable electronic device, so as to transmit the file sections in sequence to the portable electronic device; a billing module for establishing a record of bill data for charging the user by the service management center; and a bill database for storing the bill data established by the billing module, wherein the bill database is also transmitted by the transmitting module to the data source management center for performing the payment sharing process; and

- 10 a user who is connected through a network to the service management center by using a computer device, wherein after the use is permitted to login the service management center, a corresponding record of dedicated personal file data is transmitted to the user for browsing; the user is able to be wirelessly connected to the service management center by using a portable electronic device, and after the use is
- 15 verified as a member of the service management center, a corresponding record of dedicated personal file data is transmitted to the portable electronic device, allowing the user to browse introduction information of electronic files in the personal file data for selection; after the user submits a request for downloading a selected electronic file, the service management center searches from the file database for a
- 20 corresponding encoded electronic file, and divides the searched encoded electronic file into sections to be transmitted to the portable electronic device; the portable electronic device includes a temporary storing region for storing the encoded electronic file transmitted from the service management center; a decoding module

for decoding the encoded electronic file stored in the temporary storing region; and a reading platform for allowing the user to browse the decoded electronic file displayed on the portable electronic device.

5

10
15
20

10

15

20